

SUPPLEMENTAL MATERIAL

Table S1. NCS protocol summary of environmental samples by contact (for the same home) (adapted from NCS 2007a) Notes: X = Sample will be collected at contact; PU = Pick up sample (pump and badge samples will be left in place for six-seven days); SLM = sound level meter

			Prepregnancy		Pregnancy					Birth	Postnatal		
			P1 home	Materials left behind and picked up after P1	T1-1st (Home)	T1-prior (Home)	Materials left behind and picked up after T1	T3 (Clinic)	Materials left behind and picked up after T3	Birth visit (Hospital)	6 month visit (Home)	12 month visit (Home)	24 months (Phone)
Indoor Air	Method	% Homes											
PM ₁₀ - 5metals (Pb, Cd, Mn); elemental carbon	pump	100	X	PU	X	X	PU				X, PU	X, PU	
VOCs	badge	100	X	PU	X	X	PU	X ^h	Return		X, PU	X, PU	X ^h , return
Aldehydes and ketones	badge	100						X ^h	Return		X, PU	X, PU	X ^h , return
NO ₂ , NOx	badge	100			X	X	PU	X ^h	Return		X, PU	X, PU	X ^h , return
O ₃	badge	25 ^d									X, PU	X, PU	
CO	logger	100			X	X					X	X	
House Dust													
Allergens, endotoxin (+ temperature and RH)	vacuum	100						X ^h	Return		X	X	X ^h , return
Mold	vacuum	100									X	X	
Metals - Pb, Mn, As	wipe	100			X (As, Pb)	X (As, Pb)					X		
Metals ^c	dust mat	100						X ^h	Return				
Pesticides: OPs, carbamates	wipe	100	X		X	X		X ^h	Return		X		
Pesticides: OCs	wipe	100						X ^h	Return		X		
Pesticides: Pyrethroids	wipe	100	X		X	X		X ^h	Return		X	X	X ^h , return
Bulk dust sample for archive (potential for future analyses)	vacuum	100			X	X					X	X	
Drinking Water ^e													
Disinfection byproducts (DBPs) - HAA9	water	88 ^a			X	X						X	COMMUNITY
VOCs (includes THMs)	water	88 ^a			X	X					X	X	COMMUNITY
Metals - Pb, Cd, As (six-month holding time)	water	100			X	X					X		COMMUNITY
Coliforms (24-hour holding time)	water	12 ^b									X		
Nitrate (24-hour holding time)	water	12 ^b	X		X	X							
Perchlorate (28-d holding time)	water	12 ^b	X		X								COMMUNITY
Pesticides: OPs, carbamates, atrazine	water	<12 ^b	X		X	X					X	X	COMMUNITY
Pesticides: Pyrethroids	water	<12 ^b	X		X	X					X	X	COMMUNITY
Soil													
Perimeter: Metals - Pb, Cd, Mn, As	soil	100									X		
Mid-yard: Metals - Pb, Cd, Mn, As	soil	100									X	X	
Mid-yard: Pesticides - OPs, carbamates, pyrethroids	soil	>10 ^g			X	X					X	X	
Near CCA treated wood - Cr+6 (as total), As	soil	70										X	
Visual Assessment - Housing, Neighborhood - Indoor and Outdoor) ^f			X		X	X					X	X	X
Noise Survey - Indoor and Outdoor	SLM											X	

^aHouses served by CWS only; ^bAll private wells, rural communities, and/or if CWS report presence of contaminant (might limit to samples in spring/fall for pesticides and where other data indicate usage [e.g., GIS data]); ^cDeploy mat at T3 contact (self collection) and mail back at one month; ^dIf electrostatic filter, ozonator, or laser printer present, plus subsample for seasonal infiltration; ^ePAH will be assessed by Qx; metals by XRF. Sample stored for possible future analyses (perhaps allergens); ^fSome observational data will be gathered by neighborhood drive-arounds/database extraction; ^gRural areas only; ^hSelf-collected samples - Activity is initiated at in-person visit or is mailed to the participant and requires participant action (e.g., collect and mail in VOC badge). Time frame for completion varies and is specific to each activity.

NCS. 2007a. The National Children’s Study Research Plan. Appendix H: Detailed Overview of Environmental Measures. U.S.

Department of Health and Human Services, National Institutes of Health, Centers for Disease Control and Prevention, U.S.

Environmental Protection Agency.

http://www.nationalchildrensstudy.gov/research/studydesign/researchplan/Pages/Appendix_H_041408.pdf [accessed 8 June 2009]